

PSYCHE.

MATING OF ATTACUS GLOVERI.

BY CAROLINE G. SOULE, BROOKLINE, MASS.

A. gloveri seems to be as polygamous as *cecropia*, and to mate readily outside its own species. One male mated a female *promethea* twice on successive afternoons; then mated another *promethea* which had previously mated one of its own species; then, two days later, mated a third *promethea*.

Another male mated a female *angulifera* at about 7 p. m.; next day at two p. m. it mated a *promethea*; next day it mated another *promethea* which had mated another *gloveri* the day before; next day the *gloveri* mated a fresh female *gloveri*; and next day it mated the *angulifera* female a second time, the *angulifera* having laid a few eggs meantime.

Another male *gloveri* mated a *gloveri* female twice, then a *promethea*, then another *gloveri* both the latter having been mated to other *gloveri* males first.

In captivity *gloveri* seems ready to mate at any hour, and is active at intervals all day and night, growing much excited by the presence of a female, and being far more active than any Attacine moth I have watched except *promethea* male.

The female *gloveri* in my cages moved about much more actively, before mating, than any Saturniids I have seen, even than *S. cynthia*.

The female *prometheas* mated by *gloveri* males did not oviposit after the first coition, but after the second mat-

ing, — with either *gloveri* or *promethea*, — they began to lay eggs almost at once.

An *angulifera*, mated once with *gloveri*, laid a few eggs, and after mating a second *gloveri*, oviposited normally.

Both *promethea* and *angulifera* females, after the first mating with *gloveri*, protruded their ovipositors fully, just as newly emerged moths do, and eagerly mated a second and third time, in two cases five times. I have never before seen the female protrude the ovipositor after mating except for egg-laying. One female *gloveri*, after a long coition and a little egg-laying, hung for hours with the ovipositor protruded to its full length, and mated at once a male put into the cage, though the male was much battered and had mated three or four times before.

Gloveri has oviposited at any time after 2 p. m., and been ready to mate at any time of day or night. In most cases coition has lasted several hours, the longest being over seventeen hours, and the shortest five hours.

In emerging from the cocoon two *gloveri* moths moistened the opened end of the cocoon half an hour or more before emerging. Litmus paper applied to the moist end of the cocoon turned red at once. The other *gloveri*, and by far the greater number, merely pushed through the gathered end of the cocoon, without applying any fluid.